Docket No.: 10559-387001/P10192

## WHAT IS CLAIMED IS:

1. A method comprising:

generating simulation signals from a design simulation; applying a transaction rule to recognize a set of the simulation signals as a transaction; and

executing an action associated with the transaction rule.

- 2. The method according to claim 1 further comprising: successively defining the transaction rule using other rules so that the transaction rule is defined by the simulation signals.
- 3. The method according to claim 2 further comprising: executing an action associated with each rule to perform user-defined functions.
- 4. The method according to claim 1 further comprising: applying an atomic rule to recognize a set of simulation signals;

applying a non-atomic rule to recognize a set of atomic rules; and

applying the transaction rule to recognize a set of atomic rules and non-atomic rules as the transaction corresponding to the transaction rule.

5. The method according to claim 1 further comprising: placing in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replacing in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replacing one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

6. The method according to claim 1 further comprising: producing an output which includes printing information about the transaction.

## 7. A method comprising:

defining a transaction rule, which is associated with an action, by non-atomic rules, each of which is associated with an action and is defined by one or more atomic rules, wherein each atomic rule is associated with an action and is defined in terms of one or more simulation signals; and

executing each action for performing user-defined functions.

8. The method according to claim 7 further comprising: placing in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replacing in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replacing one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

9. The method according to claim 7 further comprising: defining another transaction rule to recognize a permutation of the atomic rules as the transaction.

10. An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

generate simulation signals from a design simulation; apply a transaction rule to recognize a set of the simulation signals as a transaction; and

execute an action associated with the transaction rule.

11. The article according to claim 10 further including instruction for causing the computer system to:

successively define the transaction rule with other rules so that the transaction rule is defined by the simulation signals.

12. The article according to claim 11 further including instruction for causing the computer system to:

execute an action associated with each rule to perform user-defined functions.

13. The article according to claim 10 further including instruction for causing the computer system to:

apply an atomic rule to recognize a set of simulation signals;

apply a non-atomic rule to recognize a set of atomic rules; and

apply the transaction rule to recognize a set of atomic rules and non-atomic rules as the transaction corresponding to the transaction rule.

14. The article according to claim 10 further including instruction for causing the computer system to:

place in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replace in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replace one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

- 15. The article according to claim 10 further including instruction for causing the computer system to:

  print information about the transaction as an output.
- 16. An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

define a transaction rule, which is associated with an action, by non-atomic rules, each of which is associated with an action and is defined by one or more atomic rules, wherein each atomic rule is associated with an action and is defined in terms of one or more simulation signals; and

execute each action to perform user-defined functions.

17. The article according to claim 16 further including instruction for causing the computer system to:

place in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replace in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replace one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

18. The article according to claim 16 further including instruction for causing the computer system to:

define another transaction rule to recognize a permutation of the atomic rules as the transaction.

19. An apparatus comprising:

a computerized simulator for generating simulation signals from a design simulation;

a processor configured for applying a transaction rule to recognize a set of the simulation signals as a transaction and for executing an action associated with the transaction rule to produce an output identifying the transaction.

20. The apparatus according to claim 19 wherein the processor is further configured to:

successively define the transaction rule with other rules so that the transaction rule is defined by the simulation signals.

21. The apparatus according to claim 20 wherein the processor is further configured to:

execute an action associated with each rule to perform user-defined functions.

22. The apparatus according to claim 19 wherein the processor is further configured to:

apply an atomic rule to recognize a set of simulation signals;

apply a non-atomic rule to recognize a set of atomic rules; and

apply the transaction rule to recognize a set of atomic rules and non-atomic rules as the transaction corresponding to the transaction rule.

23. The apparatus according to claim 19 wherein the processor is further configured to:

place in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replace in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replace one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

24. The apparatus according to claim 19 wherein the processor is further configured to:

print out information about the transaction as an output.

- 25. An apparatus comprising:
- a computerized simulator for generating simulation signals from a design simulation; and
  - a processor configured to:

define a transaction rule, which is associated with an action, by non-atomic rules, each of which is associated with an action and is defined by one or more atomic rules; wherein each atomic rule is associated with an action and is defined in terms of one or more simulation signals; and

execute each action to perform user-defined functions.

26. The apparatus according to claim 25 wherein the processor is further configured to:

place in a data structure a symbol corresponding to an atomic rule associated with the simulation signals;

replace in the data structure one or more symbols corresponding to atomic rules with a symbol corresponding to a non-atomic rule; and

replace one or more symbols corresponding to non-atomic rules and one or more symbols corresponding to atomic rules with a symbol corresponding to the transaction rule.

27. The apparatus according to claim 25 wherein the processor is further configured to:

define another transaction rule to recognize a permutation of the atomic rules as the transaction.